Scientific Calculator Keys & Functions - Student Cheat Sheet

OfficeCalculator.Net • Printable reference • Updated 2026-09-19

Key labels vary by model. Learn the mathematical function first, then match it to the label on your calculator. For exact keystrokes, use the manufacturer manual.

Sign on key	Name	Purpose	Example
+ − × ÷	Arithmetic	Basic operations	18 ÷ 3 = 6
( )	Parentheses	Group an expression	4 × (2 + 3) = 20
± or (−)	Negation	Enter/change sign	(−)8 + 12 = 4
x^2	Square	Raise to power 2	12^2 = 144
√	Square root	Inverse of squaring	√144 = 12
x^y / ^ / y^x	Power	Raise base to any exponent	2^10 = 1024
1/x or x^{-1}	Reciprocal	Calculate 1 divided by x	1/8 = 0.125
sin cos tan	Trig functions	Angle-to-ratio functions	sin(30°) = 0.5
$\sin^{-1}$ $\cos^{-1}$ $\tan^{-1}$	Inverse trig	Ratio-to-angle functions	$\tan^{-1}(1)$ = 45°
log	Common log	Base-10 logarithm	log(1000) = 3
ln	Natural log	Base-e logarithm	ln(e) = 1
10^x / e^x	Exponential	Inverse of log / ln	10^3 = 1000
EXP / EE / ×10^x	Scientific notation	Enter coefficient ×10^n	6 EXP 4 = 60000
π	Pi constant	Insert pi	2π ≈ 6.28318
e	Euler constant	Insert e	e ≈ 2.71828
n! / x!	Factorial	n × (n−1) × ... × 1	5! = 120
a b/c / n/d	Fraction	Enter fraction	2/3 + 1/6 = 5/6
S⇔D / F⇔D	Fraction/decimal	Switch exact/decimal form	3/8 ↔ 0.375
Ans	Last answer	Reuse prior result	9, then Ans×3 = 27

Control Keys, Modes & Practice

Use this page to avoid the most common calculator-entry mistakes.

Key / indicator	Meaning	What to remember
SHIFT / 2nd	Secondary function	Uses the alternate label printed above/beside the next key.
ALPHA	Letters / variables	Accesses variable labels on supported calculators.
MODE / SETUP	Calculator settings	Check DEG/RAD, STAT, SCI/ENG or other active modes.
DEG / RAD	Angle unit	sin(30°)=0.5 only when 30 is interpreted as degrees.
STO / RCL	Store / recall variable	Saves and retrieves named variables on supported models.
MC / MR / M+ / M−	Independent memory	Clear, recall, add to or subtract from a memory total.
AC / CE / DEL	Clear controls	Behavior varies: all clear, clear entry or delete character.

Four mistakes to catch before trusting the answer

1. Wrong angle mode: DEG and RAD interpret the same typed number differently.
2. EXP used as a power key: EXP/EE usually means “×10 to a power”; x^y or ^ is the general power key.
3. Missing parentheses: 6 ÷ (2 + 1) = 2, while 6 ÷ 2 + 1 = 4.
4. No estimate: calculate roughly first so a misplaced decimal or mode error is easier to notice.

10-minute practice routine

Time	Skill	Examples
2 min	Parentheses & signs	(7+3)×4; (−5)²
2 min	Powers & roots	14²; √196; 2^10
2 min	Trigonometry	DEG: sin30, cos60, tan45
2 min	Logs & notation	log1000; ln(e); 4.2×10^5
2 min	Mixed problem	(5²+√81)÷2 = 17

Practice online: https://officecalculator.net/ - choose Scientific mode.

Full guide: https://officecalculator.net/blog/scientific-calculator-keys-and-functions.html

Official model help: Casio and Texas Instruments publish model-specific scientific calculator guidebooks. Exact key placement varies.